American Public Works Association's
Public Works Stormwater Summit
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Introduction

Thank you, APWA, for holding this national summit on stormwater. I am delighted to be here with friends and public works colleagues to discuss how we can accelerate environmental protection while maintaining our country's economic competitiveness – which is the overarching charge President Bush gave EPA's Administrator Stephen Johnson. It is exciting that our public works leaders around the country are focusing more attention and resources on controlling and preventing stormwater pollution. My job today is to describe our vision for the stormwater program, what we are doing, what you can expect, and what you can do.

Brief History of EPA's Stormwater Program

In 1972, Congress enacted the Clean Water Act to control discharges of pollutants to waters of the United States from point sources. This initial effort to improve water quality using the National Pollutant Discharge Elimination System (NPDES) focused primarily on reducing pollutants from industrial wastewater and municipal sewage discharges. In 1990, EPA issued the Phase I stormwater rule requiring NPDES permits for operators of municipal separate storm sewer systems (MS4s) serving populations greater than 100,000 and for runoff associated with industrial activity, including runoff from construction sites 5 acres and larger. In 1999 EPA issued the Phase II stormwater rule that expanded the requirements to small MS4s in urban areas and to construction sites between 1 and 5 acres in size.

EPA's vision for the stormwater program is to help change over time how America views, values, and manages stormwater – to see it as a resouce, not a waste stream, and to ensure it repairs, rather than impairs, watersheds. That is a big vision. It requires time and money, and more specifically, it relies on technology, innovation and collaboration.

The Clean Water Act regulatory program landscape today is very different from that of the 1970s and 1980s. The number and types of NPDES permittees have increased substantially and so has the complexity of the program. The NPDES stormwater program regulates stormwater discharges from the following: municipal separate storm sewer systems (MS4s), 29 sectors of industrial activity, and construction activities occurring on sites that are 1 acre and larger. It is administered largely by state NPDES authorities. EPA regional offices administer the program in 5 states, most U.S. territories, most tribal lands and federal facilities in some locations, and also provide oversight of and assistance to state programs.

The NPDES regulations have evolved from a primary focus on direct, pipe discharges (with an emphasis on the 6,500 "major" dischargers) to now encompass program activities related to the non-major ("minors") as well as Stormwater, Concentrated Animal Feeding Operations (CAFOs), Combined Sewer Overflows (CSOs) and Sanitary Sewer Overflows (SSOs).

Implementation of the Phase I and Phase II program remains one of the greatest challenges. The national program relies on the establishment and performance of local programs in approximately 6000 communities (1000 in Phase I and 5000 in Phase II) and hundreds of thousands of industrial facilities and construction sites. As you know, the Phase II regulations came into effect in 2003 and communities have 5 years to get their programs fully up and running. We are now in the final stretch of this 5 year timeframe and many communities are lagging behind in their implementation efforts.

We need to redouble our efforts to ensure the success of this very important program. EPA is looking at 4 areas that will make a difference: permitting, training, guidance and program evaluation.

Permitting

First, our permits send strong signals to MS4s, industrial facilities, and construction sites about what is expected. While some may reach for the sky and try to do a great job based on their own motivations, most will only do what the permit actually requires – the minimal approach. EPA and the states need to focus on issuing permits that establish clear expectations and that are written with the clear end-goal of water quality protection. Furthermore, these permits need to contain more detailed goals and milestones, particularly our MS4 permits. These permits need to provide a framework for continuous, year-by-year improvement in municipal stormwater programs. Finally their provisions must be enforceable. Permits that are enforceable provide clear expectations to the permittees. They also help our inspectors do their jobs by making it clear exactly what constitutes a violation.

Training

Over the last several years, my office has been training municipal stormwater managers through a series of two-day workshops, webcasts, and other training events. We have provided training on the six minimum measures in the Phase II program to approximately 5000 individuals so far. We plan to continue our training program and expand it to include more "advanced" stormwater topics. MS4s, and for that matter, industrial and construction site operators need training, particularly on the details of their respective state programs. This year I encourage you to work with your municipal

stormwater managers to identify their specific training needs and develop programs to help them implement good stormwater programs.

Guidance

A hammer is not the only tool in our toolbox. Guidance is another critical need for municipal stormwater managers. They need simple to understand guidance that puts everything they need at their finger tips. They do not have the time or the staff to search and pull it together themselves. EPA has developed guidance on key elements of the stormwater program. Over the last several years, we have developed a variety of tools and guides, including:

- The Getting In Step Manual for developing and implementing an education and outreach program
- The Illicit Discharge Detection and Elimination Manual
- Revised and updated the EPA Menu of BMPs (online tool)
- Case studies, a set of approximately 20 case studies illustrating successful municipal implementation of some aspect of the stormwater program (online tool)

We have other tools and guides in development now on some of the other aspects of the stormwater program, including a comprehensive guide on implementing a post-construction program for Phase II communities and a SWPPP guide for construction site operators – which will be discussed in more detail this morning. States should be providing more detailed guidance and tools too. Municipal stormwater managers need advice and help on a wide variety of technical and managerial issues, including: choosing appropriate BMPs for local climate and soil conditions, creating sustainable funding mechanisms, setting priorities and goals and implementing effective

programs, streamlining and coordinating with state efforts – particularly for construction site management.

Program Evaluation

Hand in hand with good training and guidance, we need to provide municipal stormwater managers with feedback to help them build the most efficient and effective programs possible. This is particularly important during the 5 year implementation phase, before state and EPA enforcement efforts kick in. EPA is developing and field testing a tool to help states review municipal stormwater programs. The water and enforcement offices expect to finalize it soon so that states can provide more detailed feedback to municipal stormwater programs.

Qualifying Local Programs

EPA is committed to streamlining and strengthening the stormwater program and one of the keys is to make much greater use of the qualifying local program provisions in our existing regulations. The Phase II stormwater regulations included provisions that would allow for further coordination among programs at the state and local levels, particularly for construction site runoff. The qualifying local programs provision for the management and oversight of stormwater runoff from construction activities allows for such streamlining, particularly as regulated municipalities develop and implement their programs. Under this provision, the NPDES authority (usually an authorized state agency), can formally recognize a municipal program that meets or exceeds the provisions of its own construction general permit. This provision offers the opportunity to increase administrative efficiencies in the stormwater program by formally recognizing local construction management programs that meet or exceed the provisions in EPA's construction general permit.

It can ease the burden on construction site operators by providing them with one set of requirements to follow, not two. It is also an incentive for municipalities to develop strong sediment and erosion control programs that can more efficiently and effectively protect local water quality. In May 2006, I sent each state and EPA Region a letter to encourage and accelerate the use of the Qualifying Local Programs concept. I do not want this to be a top-down, Washington, DC drill. I want it to succeed, to transcend administrators. I need your help. It will continue to be a priority for me. In coming months we will provide additional guidance and support to advance the ball on qualifying local programs.

Multi-Sector General Permit

We have also been working very hard on reissuing the Multi-Sector General Permit (MSGP). The MSGP regulates stormwater discharges from 29 industrial sectors. The MSGP currently covers 4000 facilities. We hope to issue a new and improved final MSGP in the next month. This permit expired in October 2005. A proposed permit was published in the FR in December 2005 for public comment. The new permit will be effective in 5 states, DC, Puerto Rico and territories, as well as states with federal facilities or tribal lands.

We expect a re-issued MSGP will include:

(1) a state-of-the-art electronic system for filing notices of intent (NOIs) for coverage under the permit, which will automate the authorization process and provide each permittee with their facility-specific monitoring requirements;

(2) an internet-based Water Locator Tool for industrial facilities to use in pinpointing their receiving waters, in determining if this water is impaired and for which pollutant, and in determining if a TMDL has been completed for the pollutant of concern;

(3) an electronic system for submitting all monitoring data to EPA.

We also expect the permit will include more clearly stated technology and water quality based effluent limits.

Construction & Development – Permit Program and Effluent Guidelines

Construction sites represent the largest category of permitted dischargers (400,000+ annually) under the NPDES program. Construction sites over one acre must get an NPDES permit to control stormwater discharges during construction (including smaller sites that are part of a larger common plan of development or sale). The NPDES regulations require many municipalities to develop programs to manage construction and post-construction stormwater runoff that discharges to a municipal separate storm sewer system (MS4). About 6,000 communities are regulated as MS4s by the NPDES stormwater rules.

The Construction General Permit will expire on June 30, 2008, and EPA is in the early stages of considering what updates to make in the next permit. We will be looking for strong municipal construction programs to incorporate into the Construction General Permit as qualified local programs, thereby minimizing possible duplication and inconsistency of multiple layers of regulation.

Our Office of Science and Technology is also working again on a national effluent guideline for construction and development. In June 2006, the District Court in the Central District of California found that EPA must promulgate effluent guidelines for the Construction and Development industry and set a December 1, 2009 deadline for a final rule. EPA appealed that decision, and the appeal is pending before the 9th Circuit. In the meantime, we are moving forward on the rulemaking by gathering new information costs and performance, working with stakeholders to collect information

on costs and treatment effectiveness, and updating the baseline with current state and local stormwater requirements.

Introduction to Green Infrastructure/LID

Now turning to green infrastructure. Five months ago on April 19, 2007, EPA and four national groups (the National Association of Clean Water Agencies (NACWA), the Association of States and Interstate Water Pollution Control Administrators (ASIWPCA), the Natural Resources Defense Council (NRDC), and the Low Impact Development (LID) Center) signed an agreement to promote green infrastructure as an environmentally preferable approach to stormwater management. The key is that stormwater is a resource, not a waste.

This agreement is accompanied by an additional statement of support for green infrastructure that has been signed by over 30 national groups. As outlined in the agreements, a primary goal of this new partnership is to reduce runoff and sewer overflows through the wide-spread use of green infrastructure management practices. Green infrastructure represents a new approach to stormwater management that is cost-effective, sustainable, and environmentally friendly. Green infrastructure techniques utilize natural systems, or engineered systems that mimic natural landscapes, to capture, clean and reduce stormwater runoff using plants, soils and microbes.

On the regional scale, green infrastructure consists of the interconnected network of open spaces and natural areas (such as forested areas, floodplains and wetlands) that improve water quality while providing recreational opportunities and wildlife habitat. On the local scale, green infrastructure consists of site-specific management practices (such as rain gardens, porous pavements, and green roofs) that are designed to maintain natural hydrologic functions by absorbing and infiltrating precipitation where it falls.

EPA has two major funding programs that may be used to fund green infrastructure projects. Most significantly, the Clean Water State Revolving Fund may be used to provide loans and other types of financial assistance to municipalities to implement a wide range of traditional and green stormwater practices, including green roofs, infiltration basins, curb cuts and landscaped swales, and wetland protection and restoration.

In general, the Clean Water State Revolving Fund can provide financial assistance to publicly or privately owned projects not required by an NPDES permit that have a direct water quality benefit and implement a state's 319 plan. Examples include many low impact development practices and the purchase of land or conservation easements to protect critical high-value water such as riparian areas. States may also use the Section 319 grants program to implement BMP's that are not required by an NPDES permit. Many Low Impact Development (LID) practices have been implemented in a number of states with Section 319 funds.

The Green Highways Partnership

EPA and the Federal Highways Administration have teamed up to engage a variety of public and private partners in creating a national model for green infrastructure and sustainable transportation – the Green Highways Partnership. It is good new for our efforts on stormwater.

Characteristics of green highways include, but are not limited to:

- Incorporation of permeable materials and state of the art technologies that reduce or eliminate stormwater flows and pollutants to streams and rivers, while providing enhanced watershed protection;
- Construction with recycled materials, thereby reducing landfill usage and the need for use of virgin materials;

- Incorporation of practices for improved air quality;
- Integration of planning, practices and incentives to protect critical habitats, waterways, and ecosystems from the adverse impacts and encroachment of highway infrastructure and secondary development.

The Green Highways Partnership is actively benchmarking, developing and demonstrating these approaches and actions throughout the Mid-Atlantic and beyond. We are planning to share the lessons learned and innovative technologies from these studies and projects. The outcome of these efforts is sustainable transportation infrastructure that is "beyond compliance" and leaves the environment and communities "better than before" – this is the Green Highways philosophy that was adopted by the American Association of State Highway and Transportation Officials as part of their "New Vision for the 21st Century. The Green Highways Partnership, with its growing network of diverse partners, is a model for promoting sustainable infrastructure and environmental protection through low-cost and low-impact solutions.

Climate Change

Last but certainly not least, over the past several years, new information about climate change has emerged from the scientific community. Some of the uncertainties about climate change have been replaced by the scientific consensus expressed in the recent reports of the United Nations Intergovernmental Panel on Climate Change (IPCC) and in research conducted under the interagency U.S. Climate Change Science Program (CCSP). It is increasingly clear that climate change may have impacts on water resources and affect the programs designed to protect the quality of these resources. Some of the primary consequences of climate change for water resources include

rising sea levels, warming water temperatures and changes in the amounts and location of rainfall and snowfall.

Some of these impacts of climate change are related to stormwater. For example, climate models predict changes in precipitation patterns globally and in the United States. These changes in precipitation can take several forms – the amount of precipitation can increase or decrease in a given area, the relative amount of precipitation coming as rain and snow can change, and the intensity of the precipitation event can change. Several months ago, I appointed a special task force within the Office of Water whose mission is to make recommendations for program modifications concerning how the National Water Program should respond to the potential impacts of climate change. This very dedicated group has developed initial recommendations which we hope to release for public comment in the next few months. The good news is that several of the key efforts we have been making over the past few years will help us respond to climate change. For example, EPA's Green Infrastructure Initiative and the efforts on sustainable water and wastewater management both address the issue of sustainability in a watershed context. We will continue to work with stormwater managers to understand and adapt to the impacts of climate change.

Conclusions

As Pogo the cartoon character said, "We face insurmountable opportunities." EPA and APWA can seize those opportunities and make real progress on the stormwater front if we work together. You can expect EPA to continue its focus on making the complex but important program under the CWA more effective, efficient, and understandable. By strengthening and streamlining efforts we will all benefit. You can also expect enforcement of stormwater and other wet weather flows programs to remain a priority. Thank you.